

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JASON ROBERT ALMEIDA

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Appeal 2007-0984  
Application 10/044,432  
Technology Center 2100

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Decided: June 27, 2007

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Before JAMES D. THOMAS, JOSEPH F. RUGGIERO, and  
ST. JOHN COURTENAY III, *Administrative Patent Judges*.

THOMAS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal involves claims 1 through 24, all claims pending in the application. We have jurisdiction under 35 U.S.C. §§ 6(b) and 134(a).

As best representative of the disclosed and claimed invention, representative independent claim 1 is reproduced below:

1. A computer program product comprising processor executable instructions for programming a non-volatile storage element in a data processing system, the instructions being stored on a computer readable medium, comprising:

computer code means for encrypting a digital signature using a first encryption key;

computer code means for passing the encrypted signature to a kernel routine;

computer code means, responsive to successfully decrypting the encrypted signature using a second encryption key, for transitioning the data processing system from a protected-mode to a real-mode; and

real-mode computer code means for flash programming the non-volatile storage element.

The following references are relied on by the Examiner:

Hughes	US 5,968,174	Oct. 19, 1999
Bright	US 6,141,756	Oct. 31, 2000
Cuccia	US 6,151,676	Nov. 21, 2000

Claims 1, 2, 4, 5, 9, 10, 12, 13, 17, 18, 20, and 21 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bright. All remaining claims on appeal stand rejected under 35 U.S.C. § 103. As evidence of obviousness, as to claims 3, 11, and 19, the Examiner relies upon Bright in view of Hughes in a second stated rejection. In a third stated rejection, the Examiner relies upon Bright in view of Cuccia as to claims 6, 7, 14, 15, 22, and 23. Lastly,

in a fourth stated rejection, the Examiner also relies upon Bright in view of Cuccia as to claims 8, 16, and 24.

Rather than repeat the positions of the Appellant and the Examiner, reference is made to the Brief and Reply Brief for Appellant's positions, and to the Answer for the Examiner's positions.

### OPINION

We reverse the Examiner's initial rejection under § 102 and, consequently, we reverse the separate rejections under § 103 based upon additional prior art. On the other hand, we set forth our own rejections of claims 1 through 24 on appeal within the provisions of 37 C.F.R. § 41.50(b).

Noting first that Appellant has presented arguments in the Brief only as to the rejection under 35 U.S.C. § 102 and has presented no arguments as to the separately stated rejections under 35 U.S.C. § 103, we are persuaded by Appellant's reasoning to reverse the rejection under § 102 for the reasons generally set forth at pages 10 and 11 of the principal Brief on appeal. Here, Appellant asserts, and we agree with Appellant's understanding of Bright, that this reference does not disclose either expressly or inherently anything regarding transitioning a system from a so-called protected mode to a so-called real mode; that the terms "real mode" and "protected mode" are not used in Bright and that the terms "kernel" or "kernel routine" are not taught or suggested either expressively or impliedly to the artisan in Bright.

The discussion in the paragraph bridging pages 10 and 11 of the principal Brief on appeal makes reference to the prior art discussion at the top of Specification page 2 relating to the use of the well known prior art terms to "protected mode" and "real mode." On the other hand, Bright's discussion in the initial paragraphs with respect to prior art processors, as

well as the specific type of processor identified in Figure 1 as element 101 at the bottom of column 2 of Bright, makes no reference to prior art structures or processors that the artisan would consider well known in the art to have embodied the quoted terms as well as the term “kernel.” Moreover, no operating system associated with the identified general and specific teachings of prior art processors has been indicated to the reader in Bright. Therefore, it cannot be fairly stated within 35 U.S.C. § 102 utilizing the Examiner’s inherency argument that the disputed terms, all of which were noted earlier, as recited in each independent claim on appeal, are necessarily present or implicit from an artisan’s perspective within Bright. Since an understanding from an artisan’s perspective is not specifically taught as to these terms in Bright as well as inherently and necessarily part thereof, the rejection of each independent claim under 35 U.S.C. § 102 must be reversed. Likewise, the respective rejection of the dependent claims set forth in the initially stated rejection must also be reversed as well the separately stated rejections utilizing additional prior art under 35 U.S.C. § 103.

On the other hand, we introduce our own rejection of all claims on appeal within 35 U.S.C. § 103 through the provisions accorded us within 37 C.F.R. § 41.50(b). We simply add to the Examiner’s reasoning of each of the above-noted separately stated rejections of the claims on appeal the starting point being the admitted prior art beginning at Specification page 1, line 26 through at least the discussion at Specification page 2, line 23. The discussion here makes clear to us and the artisan that such operating systems that utilize kernel level privileged accessibilities and the ability to transition selectively from protected modes to real modes were known in the art. What the prior art recognizes as deficient was that any non-privileged user may

execute the transition codes necessary within the kernel to introduce modified programming to control it and the operating system as a whole.

Bright, from an artisan's perspective, clearly would have provided the needed teachings to overcome the known deficiencies of the admitted prior art. The extensive teachings of the so-called bootstrap mode in Bright clearly would have suggested to the artisan the ability to encrypt and selectively decrypt new/modified internal operating instructions within a processor. An externally introducible modification of program code from external device 103 in Figure 1, where the showing in Figure 2 clearly indicates to the artisan the ability to encrypt such code, is decrypted with element 107 by using the key 113 within the processor 101 in this figure. This decryption capability is shown within Figure 3. Moreover, the ability to use both public and private keys, respectively, is taught at columns 3 and 4 of this reference. Additionally, the ability to effect internal code and hardware functions restrictively through only authorized users is taught at the bottom of column 4, and summarized in the discussion at column 5, lines 14 through 24 as advantageous approaches to modifying existing coding structures in prior art processors such as those embodying operating systems including kernel functions consistent with those of the admitted prior art at Specification pages 1 and 2. Therefore, the identified claims set forth in the Examiner's initially stated rejection, including independent claims 1, 9, and 17 would have been obvious to the artisan in light of the collective teachings of Appellant's admitted prior art at Specification pages 1 and 2 in view of Bright. The examiner's second through fourth stated rejections utilizing respectively additional references to Hughes and Cuccia are hereby modified

consistent with this reasoning and the reliance upon Appellant's admitted prior art.

In summary, we have reversed the Examiner's rejections of certain claims on appeal under 35 U.S.C. §§ 102 and 103. On the other hand, we have introduced our own rejections of claims 1 through 24 on appeal utilizing Appellant's admitted prior art within the discussion of the prior art at Specification pages 1 and 2 as filed by respectively modifying each of the Examiner's stated rejections.

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Appeal 2007-0984  
Application 10/044,432

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

REVERSED; 37 C.F.R. § 41.50(b)

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